

Application No.: 10/568,081  
Amendment Dated 27 April 2007  
Reply to Office Action of 7 February 2007

*AMENDMENTS TO THE CLAIMS*

This Listing of Claims will replace all prior versions, including listings, of claims in the application.

***Listing of Claims***

Claim 1 (currently amended): An isolated nucleic acid selected from the group consisting of (a) an isolated nucleic acid encoding ~~a~~ the polypeptide having the amino acid sequence set forth in SEQ ID NO:5 and (b) an isolated nucleic acid ~~having a nucleotide sequence of greater than about fifty nucleotides~~ which hybridizes under stringent conditions to the isolated nucleic acid encoding ~~a~~ the polypeptide having the amino acid sequence set forth in SEQ ID NO:5 and provides a plant with resistance to Xanthomonas when transfected into the plant, wherein the stringent conditions are selected from the group consisting of (1) using a low ionic strength and high temperature for washing consisting of 0.015M NaCl/0.0015M sodium tartrate/0.1% sodium dodecylsulfate at 50° C, (2) using a denaturing agent during hybridization consisting of 50% formamide with 0.1% bovine serum albumin/0.1% Ficoll/0.1% polyvinylpyrrolidone/50 mM sodium phosphate buffer at pH 6.5 with 750 mM NaCl, 75mM sodium citrate at 42° C and (3) using a denaturing agent during hybridization consisting of 50% formamide, 5 x SC (0.75M NaCl, 0.075M sodium citrate), 50mM sodium phosphate (pH 6.8), 0.1% sodium pyrophosphate, 5 x Denhardt's solution, 50 µg/m sonicated salmon sperm DNA, 0.1% SDS, and 10% dextran sulfate at 42° C with washes at 42° C in 0.2 x SSC and 0.1% SDS and wherein the isolated nucleic acid of (b) has 90% identity with the isolated nucleic acid of (a).

Claim 2 (withdrawn): A method of making a plant resistant to Xanthomonas, the method comprising transfecting the nucleic acid of claim 1 into said plant or transfecting said nucleic acid into a plant cell or cells and growing a plant from said cell or cells.

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Claim 3 (currently amended): The isolated nucleic acid of claim 1, wherein the nucleic acid is selected from the group consisting of (I) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:1, (ii) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:2, (iii) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:3, (iv) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:4, and (v) an isolated nucleic acid ~~which hybridizes under stringent conditions comprising a polynucleotide sequence of greater than about fifty nucleotides which shows more than ninety percent identity to SEQ ID NO:1 and provides a plant with resistance to Xanthomonas when transfected into the plant~~ to said isolated nucleic acid of (I), (ii), (iii) or (iv) and provides a plant with resistance to Xanthomonas when transfected into the plant, ~~wherein the stringent conditions are selected from the group consisting of (1) using a low ionic strength and high temperature for washing consisting of 0.015M NaCl/0.0015M sodium tatrate/0.1% sodium dodecylsulfate at 50° C, (2) using a denaturing agent during hybridization consisting of 50% formamide with 0.1% bovine serum albumin/0.1% Ficoll/0.1% polyvinylpyrrolidone/50 mM sodium phosphate buffer at pH 6.5 with 750 mM NaCl, 75mM sodium citrate at 42° C and (3) using a denaturing agent during hybridization consisting of 50% formamide, 5 x SC (0.75M NaCl, 0.075M sodium citrate), 50mM sodium phosphate (pH 6.8), 0.1% sodium pyrophosphate, 5 x Denhardt's solution, 50 µg/m sonicated salmon sperm DNA, 0.1% SDS, and 10% dextran sulfate at 42° C with washes at 42° C in 0.2 x SSC and 0.1% SDS and wherein the isolated nucleic acid of (v) has 90% identity with the respective isolated nucleic acid of (I), (ii), (iii) or (iv).~~

Claim 4 (withdrawn): A method of making a plant resistant to Xanthomonas, the method comprising transfecting the isolated nucleic acid of claim 3 into said plant or transfecting said isolated nucleic acid into a plant cell or cells and growing a plant from said cell or cells.

Claim 5 (currently amended): The isolated nucleic acid of claim 1, wherein the isolated nucleic acid encodes ~~a~~ the polypeptide of SEQ ID NO:5.

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Claim 6 (withdrawn/currently amended): A method of making a plant resistant to Xanthomonas which comprises expressing in the plant ~~a~~ the polypeptide of claim 5.

Claim 7 (withdrawn/currently amended): The method of claim 6 wherein the polypeptide is expressed from a nucleic acid which comprises a nucleic acid encoding the polypeptide operably linked to a plant functional promoter.

Claim 8 (withdrawn): The method of claim 7, wherein the promoter is selected from the group consisting of a tissue-specific promoter, a constitutive promoter and an inducible promoter.

Claims 9-10 (canceled).

Claim 11 (previously presented): A vector which comprises the isolated nucleic acid of claim 1.

Claim 12 (currently amended): ~~A~~ The vector ~~as in~~ of claim 11 which further comprises a plant functional promoter operably linked to said nucleic acid.

Claim 13 (previously presented): The vector of claim 12, wherein the promoter is selected from the group consisting of a tissue-specific promoter, a constitutive promoter and an inducible promoter.

Claims 14-18 (canceled).

Claim 19 (withdrawn): A plant cell that is transformed with the nucleic acid of claim 5.

Claim 20 (withdrawn): The transgenic plant of claim 24, which is rice.

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Claim 21 (withdrawn): The transgenic plant of claim 24, wherein the plant is selected from the group of plants consisting of barley, oats, wheat and corn.

Claims 22-23 (canceled).

Claim 24 (withdrawn): A transgenic plant that is resistant to Xanthomonas, comprising the plant cell of claim 19.

Claim 25 (previously presented): The isolated nucleic acid of claim 5, wherein the isolated nucleic acid is selected from the group consisting of (I) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:1, (ii) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:2, (iii) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:3 and (iv) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO:4.

Claim 26 (previously presented): A vector which comprises the nucleic acid of claim 3.

Claim 27 (previously presented): A vector which comprises the nucleic acid of claim 5.

Claim 28 (previously presented): A vector which comprises the nucleic acid of claim 25.

Claim 29 (currently amended): The vector of claim 27 which further comprises a plant functional promoter operably linked to said nucleic acid.

Claim 30 (previously presented): The vector of claim 29, wherein the promoter is selected from the group consisting of a tissue-specific promoter, a constitutive promoter and an inducible promoter.

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Claim 31 (withdrawn): A plant cell that is transformed with the nucleic acid of claim 25.

Claim 32 (withdrawn): A transgenic plant that is resistant to Xanthomonas, comprising the plant cell of claim 31.

Claim 33 (withdrawn): The transgenic plant of claim 32, which is rice.

Claim 34 (withdrawn): The transgenic plant of claim 32, wherein the plant is selected from the group of plants consisting of barley, oats, wheat and corn.

Claim 35 (new): The isolated nucleic acid of claim 1, wherein the identity is 95%.

Claim 36 (new): The isolated nucleic acid of claim 3, wherein the identity is 95%.